

Science
Comm.

December 12, 1946.

Dear Mr. Breasted:

In order to expedite our discussion at tomorrow's meeting, we submit herewith a preliminary outline of a general plan for science exhibits in the Museum. This outline is drawn up after consultation with Dr. Engel (Geochemist and Mineralogist), Mr. Stager (Ornithologist), Dr. Watson (Physicist, C.I.T.) and Mr. Wylde (Cur. Exhibitions).

We should like to discuss this preliminary plan with you before we proceed in detail, and before making final estimates as to cost.

Respectfully yours,

THE SCIENCE COMMITTEE

John A. Comstock
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John A. Comstock

Chester Stock
.....
Chester Stock

W. Dwight Pierce
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W. Dwight Pierce

Hildegarde Howard
.....
Hildegarde Howard

HALL OF THE EARTH

Contents:

- A. The atom
 - Structure
 - Matter vs. energy
 - Formation of molecules
(involving chemical elements)
- B. Formation of the earth
 - Plantesimal hypothesis
 - Formation of rocks of the earth
(igneous, sedimentary, metamorphic)
 - Formation of minerals)
(geochemistry)
- C. Minerals of the earth
 - Involving atomic structure and chemical composition

D. Minerals of Calif.

Hall to be used: Science rotunda (of old building)

Note: A temporary exhibit along these lines is under way
at present.

ASTROPHYSICAL EXHIBITS

These may be shown around the balcony over the rotunda.
The dome may be used to demonstrate the position of the
earth and other planets in the universe.

Evolutionary Life
 HALL OF EVOLUTION (or HALL OF LIFE)

Contents:

- A. Basic principles of living matter
 (protoplasm, the cell, chemistry of life)
- B. The mechanism of heredity (genetics)
 Structure of sex cells
 Division of sex cells
 Chromosomes and genes
- C. Demonstration of development from simple to
 complex as revealed by taxonomy (*classification*)
 (one-celled forms, multiple celled, complexity
 of organ systems, etc.)
 Elaboration on the mezzanine (see below)
- D. Demonstration of development from simple to
 complex as revealed by embryology
 (models showing human development, contrasted
 with development of one or more of the lower
 animals)
- E. Demonstration of relationship of animals (and man)
 by anatomical models and skeletons.
- F. Adaptive radiation and geographic distribution
- G. Demonstration of evolution by the fossil record.
 Evolution of the horse and one or two other groups.

Hall to be used: North wing of old building

Note: Much of the preparation of exhibits for this hall
 should be carried to completion before construction
 of the gallery itself is undertaken.

Mezzanine over Hall of Evolution

Demonstration of "trees of life" of the main groups of
 life forms.

HALL OF ECOLOGY

Actually, every habitat hall might be considered a Hall of Ecology. The habitat groups demonstrate the animal in its environment. The addition of more groups which include more than one kind of animal (such as the African water-hole group) would further tell the story of ecology.

In addition to the groups themselves, however, there should be exhibits explaining "ecology." We believe that such exhibits could be placed down the center of the big habitat halls. Such placement should have the added advantage of helping to prevent the reflections which are now so troublesome. The central exhibits could be arranged so as to present a clear, blank wall to the large habitat groups, and could be arranged with respect to each other in a staggered manner which would prevent reflection there.

The subject matter to be covered in such an exhibit would include the following:

- A. The physical environment
Topography, soil, climate
- B. Animal and plant structure vs. function
(structural adaptations to environment)
- C. Interrelationship between plants and animals
Plant and animal physiology
- D. Associations within particular life zones
Use specific life zones found in southern California

HALL OF NORTH AMERICAN BIRDS

Plans (in blueprint stage) for this gallery as proposed for M-A-4 can be carried out with but little modification in the second floor "open air" gallery, closed in as suggested by Mr. Wylde.

We should like to see the construction of this hall undertaken in 1947, with a goal of completion of at least one group -- the Condor group. Mr. Morejohn believes it will be possible to use the Condors we have by careful renovating and modelling.

HALL OF PHYSICS
(FOR WAR OR PEACE?)

The planning of this hall would necessarily be undertaken by a trained physicist. Such a man need not become a permanent member of the staff, but could be taken on as "consultant" with salary.

It is our understanding that the Nuclear Physicists have formed an organization. They are extremely interested in furthering the cause of "physics for peace," instead of "physics for war." It is entirely possible that an exhibit such as we have in mind might interest this group to the point of giving actual financial aid.

The exhibit:

The exhibit should demonstrate, on the one hand, what life in the world will become, if the atomic bomb is accepted for use in future wars. Habitations underground, etc.

On the other hand, it should demonstrate what life could be on earth if atomic power were turned only to peaceful ends. Advances in medicine, power, etc.

Included, also, should be exhibits demonstrating the destructive power of the V-bomb, and its potentialities as a means of exploring outer space if its uses are converted to peaceful ends.

This hall might very well include dioramas and models illustrating the history of man's achievements in physical science leading to the atomic bomb.

Comments:

This exhibit would have tremendous popular appeal, and should, therefore, be strategically placed in the Museum. The gallery to the west of the science rotunda (the old building art gallery) would be suitable, as being easily accessible from the main entrance and also adjacent to the other science exhibits.

RANCHO LA BREA HALL

We believe that we should work toward the ultimate construction of a Geological Museum at Hancock Park, and that the entire contents of La Brea Hall should then be moved to such a Museum.

In the meantime, we believe that the Hall should remain in tact, here, undergoing certain minor revisions which will bring added interest in the story of Rancho La Brea to the public.

Mezzanine over La Brea Hall

Also until such time as a geologic museum can be constructed, we believe that the mezzanine over La Brea Hall should be used to tell the story of developing life through the ages. The "Hall of the Earth" will describe the formation and history of the earth and its rocks. This mezzanine exhibit would continue the story, with the beginning of life on the earth and the major changes to be noted from one era to the next.

A start has already been made in this direction, as it is desirable to provide a presentable exhibit by next spring when the petroleum geologists will meet in Los Angeles. We hope to enlist some interest and cooperation from this group.

- ✓ Old Crome
- ✓ Fresh Paint (4 days)
- ✓ News release (Byrnes)